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ABSTRACT

Study skills are comprised of both reading and thinking skills, and they can be classified as receptive, reflective, or expressive abilities. The objective of teaching study skills is to enable young people to study efficiently and independently in a variety of learning activities. The approaches to teaching study skills that are discussed in this paper are functional-incidental (practical applications in class), content-oriented, textbook, curriculum, and skill-oriented. It is emphasized that teachers should not merely adopt a specific approach, but should adapt one or a series of approaches to the diverse needs of the students. With that point in mind, four essential features of any good study skills program are listed: (1) instruction geared to students' individual differences, needs, and abilities; (2) correlation of the study skills that are taught in the reading program with other instructional activities; (3) Evaluation of pupil achievement and growth at regular intervals; and (4) encouragement of students toward increasing independence in the use of study skills. (RL)

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DEVELOPING STUDY SKILLS IN THE READING PROCESS

by

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Introduction

In these days of individualized instruction, self-managed learning, media and resource centres, mastery and discovery learning, not to mention the information explosion, it would seem that the teaching of study skills should have a high priority in our schools, not only to give our pupils the means they need to deal efficiently with their daily classroom tasks but also to enable them to cope with the world outside the school gate. In other words, we must teach them how to learn but, more than that, we must teach them how to learn independently so that, once they leave school, they are equipped for a lifetime of learning. Yet, while preparing the PAT: Study Skills Tests, I found evidence of neglect of the teaching of these vital skills that would astonish you. We can, I suppose, console ourselves by saying that this neglect is not confined to New Zealand, for it would seem to be widespread in America and other countries as well; almost every published study calling for more effort, more teacher awareness, in this area. Much of the problem, in New Zealand and elsewhere, seems to stem from an assumption on the part of teachers that children have been previously taught the skills by somebody else, or that children have developed the habits and skills for independent study through some sort of maturation process. Frinsko and Drew (1972), in an article on teaching index skills entitled, 'Look It Up! But Can They?' state:

> 'Undoubtedly the assigning of independent research tasks to children in the elementary school has been based on the assumption that they were capable of proceeding on their own with little if any guidance or specific instruction from the teacher. After frustration on the part of the student and

> disappointment on the part of the teacher, there must have been recognition by many teachers that a significant number of students were not ready to do independent research.'

You must have observed the same thing yourselves many times. Watch a small group of children sent to the library to do 'research' on a problem. Do they use the library effectively? Do they use more than one resource book? Do they evaluate selected books for relevance, currency, author status? Do they use the table of contents and index to check whether the book does have anything on their particular problem? Can they survey or skim read to get some notion of what the relevant sections contain? Can they recognise the main ideas, take notes, summarize, outline and write up a coherent short report in their own words? My observations (and I think them fairly typical) are that very few of the skills I've mentioned are exercised with any competence. Children are reduced to browsing along the library shelves until something likely-looking (chosen by title or cover) strikes their fancy, a quick cursory flip through the pages and the child settles down to copy out laboriously whole chunks of the book. And this passes (fairly uncritically I might add) as 'independent research'.

Morse and McCune (1964), writing in a National Council for the Social Studies bulletin on study skills and critical thinking, suggest two reasons for the unsatisfactory state of affairs in American schools, and these reasons probably apply in New Zealand as well. They say: '[that] many teachers... neglect the teaching of study skills and methods of enquiry because they themselves are not familiar with the necessary skills', and they go on to say, 'there has not been generally available to the average classroom teacher any method of appraisal of the progress of pupils in learning the desired skills'. The Test Development Division at NZCER is currently working to remedy this lack in New Zealand, first

by the preparation of a study habits and attitudes inventory and, second, by the production of three standardized tests of study skills.[2]

It's all very well to criticise, as I am, but what can a teacher do to develop a sound and successful study skills programme? Where does such a programme fit into the reading process? How does it match up with all the other activities which take place in the classroom?

What Are Study Skills?

At the outset, and before we tackle these fairly important questions, it might be as well to define exactly what it is that we are calling 'study skills'. The literature is by no means clear, but repeatedly the word 'reading' is associated with the word 'study'. Herber (1965), in his introduction to the IRA publication Developing Study Skills in Secondary Schools, suggests that this is no accident. He says that though reading can be performed without the process of study, study usually assumes the ability to read. Note that statement, because it seems to me crucial and would certainly dictate when instruction in the study skills can begin. And the obvious corollary, of course, is that those who cannot read have no need for reading study skills. Tinker and McCullough (1962), take a similar view. Other writers, such as Smith (1964) and Bamman et al. (1961), also consider that study skills refer to the application of specific reading skills to particular study tasks.

The Concise Oxford dictionary defines study as: 'Devotion of time and thought to acquiring information especially from books; pursuit of some branch of knowledge'. Obviously this pursuit requires the pupil

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2. The PAT: Study Skills Tests were standardized in March 1976 and the materials are ready for publication. Work on the study habits and attitudes inventory is continuing.

to utilize all the skills in his repertoire which are applicable to a problem in an attempt to find a solution. Note that it is assumed that the pupil possesses the necessary reading and thinking skills to bring to bear on the study task. Is this a reasonable assumption? Can we expect children of low intelligence to achieve more than minimum competence in many of the study skills? The only clear statement I have come across on this is by Courtney (1965), who says that, as far as the expressive area skills are concerned, intelligence and insight are basic prerequisites. Other writers skirt delicately around the problem. Moreover, suppose children do possess reading and thinking skills, do they have the ability to independently apply the range of skills which will result in the formulation, analysis and successful solution of even a simple problem? Only if the relevant skills have been developed by comprehensive, systematic and competent teaching and opportunities have been provided for regular practice of them.

Study Skills Involved in Problem Solving

What study skills might be involved in solving a simple problem? A logical analysis I made before commencing construction of the PAT: Study Skills Tests follows below. Note that the number of steps in the sequence seems to depend on several factors:

1. The complexity of the problem.
2. The location and source of information.
3. Whether or not evaluation of the relevance, accuracy or authority of the source is required.
4. The nature or purpose of the exercise.

Try working through the first and last problems; the steps and decisions required for a satisfactory solution appear to differ in each case.

ANALYSIS OF PUPIL APPROACH TO PROBLEM

- How fast is the population of Asia growing?
- What are the sources of pollution?
- Who were the first settlers in our district?
- Why do homeowners pay rates?

CRUCIAL

Isolation of key word(s) in problem before search sequence can begin.

What source(s) best?

A book? Newspaper? Magazine?

Specialist book? Textbook, dictionary, etc.

Set of reference books? Encyclopedia.

Ask expert or adult?

Other non-book source? e.g., observation, photograph.

Where do I find the source?

Library? Class, school, public, home.

Special collection of some kind?

Incorporated in other reference book(s)?

Specialist book or magazine?

* This is either stated for the pupil by another, or he must formulate for himself. Apart from recognition that a problem exists, the latter is one of the most difficult skills to learn.

Where do I locate the book?	Card catalogue in library? Which section of library? Fiction, non-fiction, reference, periodicals. Which volume of encyclopedia? Which map, or set of photographs? Which specialist book? Yearbook, almanac, etc.
Where do I look to see if it might have the answer?	Title, sub-title(s) Table of Contents Index; cross references Guide words
How do I decide if it does have the answer?	Skim for organization, to locate key words, relevant sections. SQ3R method using title, headings, sub-headings, tables, diagrams, maps, captions, illustrations, conventions to direct to other sources, e.g., footnotes, bibliographies. Look at topic sentences, opening and closing paragraphs, author's marginal notes, clues to emphasis, etc.
How do I decide what is worthwhile reading; what is not? How do I know that what I am reading is true or not? Up-to-date? Doesn't leave anything out? Is unbiased? etc.	Read critically Author status, preface, foreword Publication date, copyright date, revised printing date Evaluate whether fact and/or opinion Author's purpose, assumptions, etc.

	Take notes
How do I report and/or remember	Make an outline
the relevant material?	Make a written summary
	Draw a diagram

Study Skill Classification

In talking about the teaching of study skills (and the testing of them for that matter) one is always aware that in identifying the skills, in determining which of them are required for particular jobs, and in trying to make their teaching a manageable task, the tendency is to treat the skills in isolation. Yet, as you will know, this is not how the skills are applied in practice. Study skills, comprising both reading and thinking skills, are combined in complex patterns; the process is one of fusion rather than fragmentation. This should be borne in mind during the discussion which follows.

How can we group the skills in order to discuss them? One way is to view them as three more or less coherent clusters rather than as disjointed lists. One 'cluster' of study skills has to do with the intake of ideas through the reading process. This process would involve such very basic skills as the pronunciation of words, and the deriving of meaning from printed symbols. It would also include such complex skills as identifying main ideas, as distinct from supporting and illustrative detail, and the ability to recognise what is relevant from what is not. Following directions, interpreting pictorial materials, using varied sources of information, knowing where to locate information in the text and similar skills would also fall into the category. These are receptive skills and are fundamental to successful study.

Simply taking in ideas is not enough, however. We expect the pupil to be able to reflect upon the information. There must be some interaction between the individual and what he reads or sees in front of him. Skills

such as inference, interpretation, drawing conclusions, predicting outcomes and making assumptions would be involved in the process of reflection. So, too, would perceiving the organization which the author had imposed on his material and the integration of these ideas with what the pupil already knows to form new patterns of knowledge. These are reflective skills, which produce a synthesis of facts and ideas, and so greater understanding.

Suppose a pupil is competent in both the receptive and reflective areas, could one be satisfied? You would probably have what many teachers would describe as a 'good' reader. But 'good' readers are not necessarily good students, for they may lack skills of a third type, those in the expressive area. These are the skills which enable the pupil to impose organization on what has been gained through the use of the receptive and reflective skills. They allow him to apply his knowledge and to demonstrate its utility. Until the pupil has expressive skills we cannot say he is fully competent in the use of study skills.

Another way to view study skills is to consider them under three broad headings, as we have done at NZCER for test construction purposes.

1. Knowledge and use of reference materials, that is, a pupil's ability to understand alphabetical order, tables of contents, the use of encyclopedias, dictionaries, directories, reference sources, indexes, library practices and the use of books generally to locate information.

2. Ability to read and interpret pictorial, tabular, diagrammatic and graphic materials, that is, how well a pupil is able to derive meaning from different kinds of graph, timetables, maps of various kinds, pictures, charts and diagrams and simple and complex tables.

3. Reading Study Skills, that is, a pupil's capacity in location skimming, deriving information from printed prose (SQ3R), summarising, outlining, recognizing irrelevant statements, recognizing bias, differentiating between fact and opinion and so on.

I do not intend to discuss all the skills and sub-skills that can be fitted into these various categories, but I might mention at this point that the interim manual for the PAT: Study Skills Tests contains lists of study skills; anyone interested can write to us for a copy. Nor should I need to explain why we want our pupils to acquire the skills, and the habit, of independent study. But I do want to say something about who should teach these skills, when they should be taught, and how they should be taught.

Teaching Study Skills

I do not think there is any question about who should teach pupils to study. The classroom teacher is primarily responsible for guiding his pupils' development in study skills in the primary and intermediate area, and the bulk of the skill development will probably be done through the reading programme. In the secondary school every teacher should be a teacher of study skills, but the development will tend to be in content fields and a fairly heavy load will fall on the teachers of English, Social Studies, Science and Mathematics. This all sounds very reasonable for the secondary school, doesn't it? Thus, the development of dictionary and library skills, the writing of outlines and summaries will be part of the language programme, the maths and science teachers will ensure that graphs and tables can be constructed, read and interpreted and map reading, picture and diagram interpretation will be allocated to the social studies teacher. But that does not seem to be what happens. Instead, some subject teachers concentrate on content learning, neglecting the teaching of any prerequisite study skills. In other cases the skills are taught but, since they are regarded as only a secondary objective of the teaching programme, in a somewhat superficial way. Moreover, the assumption is frequently made that, having been 'exposed' to a particular skill, the pupil then knows how to apply it. In fact, of

course, study skills not only need systematic teaching but frequent practice as well, and the secondary school curriculum is particularly rich in opportunities for this practice and consolidation.

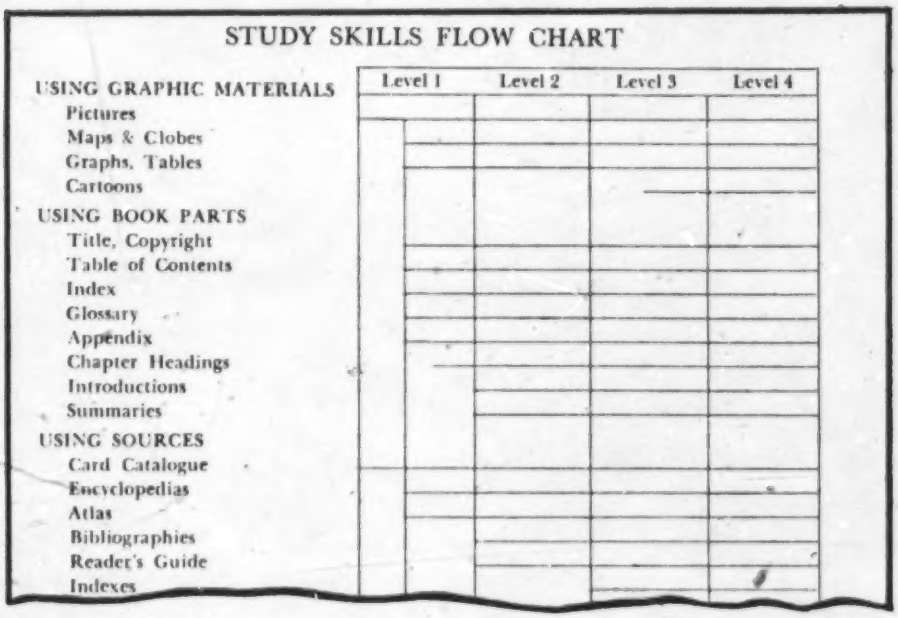
Now, this view of the secondary teacher's role does not necessarily meet with universal approval. I can well imagine some secondary people saying that the skills should have been learnt in the primary school; they would like to get on with the job and have the pupils apply the skills. This may be a fairly common view. Herber (1965), for example, reported that English teachers were unwilling to take part in study skill programmes in the United States as they felt that the primary responsibility for teaching study skills was not theirs and that the English curriculum should not be used for the development of the skills. Yet, obviously, English requires the exercise of a great many study skills, particularly those in the expressive area. Thankfully, in New Zealand, we do have some texts, like those written by Peter Smart, which in the first and second years of secondary school reinforce and consolidate a number of important study skills. At the secondary level I see the English teacher playing a very important role in furnishing the links between what is taught in other content areas and in providing practice in many of the reflective and expressive-type skills.

When should the skills be taught? Unfortunately, as Shores and Snoddy (1971) report in an article written for Elementary English:

> 'At this time there is neither theory nor research upon which to base a plan for developing a sequence of instruction in these skills or for determination of the time when they could be most effectively introduced.'

Sad, but true. Nobody to the best of my knowledge has produced a taxonomy of study skills comparable, say, with those produced for a subject like mathematics. There are plenty of lists, but no generally

accepted arrangement from simple to complex. Nor are there any statements, backed by research, about the order in which skills should be taught although there are, of course, some common sense sequences. Knowledge of the alphabet must surely be a prerequisite for using directories, dictionaries and indexes and being able to isolate the main ideas one would think must precede summarising and outlining. But does using a map scale come before using a map legend? Does being able to use cross references come before using sub-headings?



Catterson, J. H. 'Successful Study Skills Programs', in H. L. Herber (Ed.), Developing Study Skills in Secondary Schools, Perspectives in Reading, No. 4. Newark, Delaware: International Reading Association, 1965.

Flow charts such as the one above produced by Catterson (1965) have some appeal, but the problem, as she realises, is that such charts have their limitations in that they are rectangular when ideally they should be in the form of a spiral. She states that a flow chart might lead teachers to introduce specific skills at a particular class level, at a level of difficulty and with materials suited to that class, and then neglect to raise the level

of complexity of the skill and the difficulty of material beyond that introductory stage. The spiral notion, on the other hand, suggests continuous reinforcement and increasing sophistication in the development and use of the skill.

II. The Dictionary

A. *Grade*	*Skill That Should Be Attained*	*Tools or Methods*
1st and 2nd	classroom use of picture dictionaries and ABC books	. . . make picture dictionaries of their own
3rd	independent use of elementary dictionaries in the library by the best students . . . use the glossaries in textbooks and library books	. . . the dictionaries are in the reference section of the library . . . alert children to note glossaries in library books and textbooks
4th	ability to use dictionaries and their guide words to (1) obtain definitions (2) obtain correct spelling (3) obtain correct pronunciation	. . . make own dictionary of "new or technical words" . . . use a beginning dictionary in the classroom . . . send best students to the library to use adult dictionaries.
5th	as above, plus the use of special dictionaries . . . these may be introduced by the teacher as the need	. . *Webster's Biographical Dictionary, Webster's Geographical Dictionary* (See: V Library Skills)

Mahoney, S. 'Basic Study Skills and Tools'. Elementary English, 42 : 905-15, December, 1965.

Sally Mahoney (1965) published a list of basic study skills matched with class level and supported by a statement of suggested methods to be used to develop the various skills. The skills in the Mahoney list are very basic, however, and deal with the alphabet, the dictionary, parts of a book, encyclopedias, library and research skills, and there is much overlapping and interdependence. Also, the assignment of levels does not seem to be based on any research and appears to be very much an individual view. There are others of this kind which can be ferreted out of the literature but most, if not all, suffer from the same limitations - no apparent theoretical or research basis.

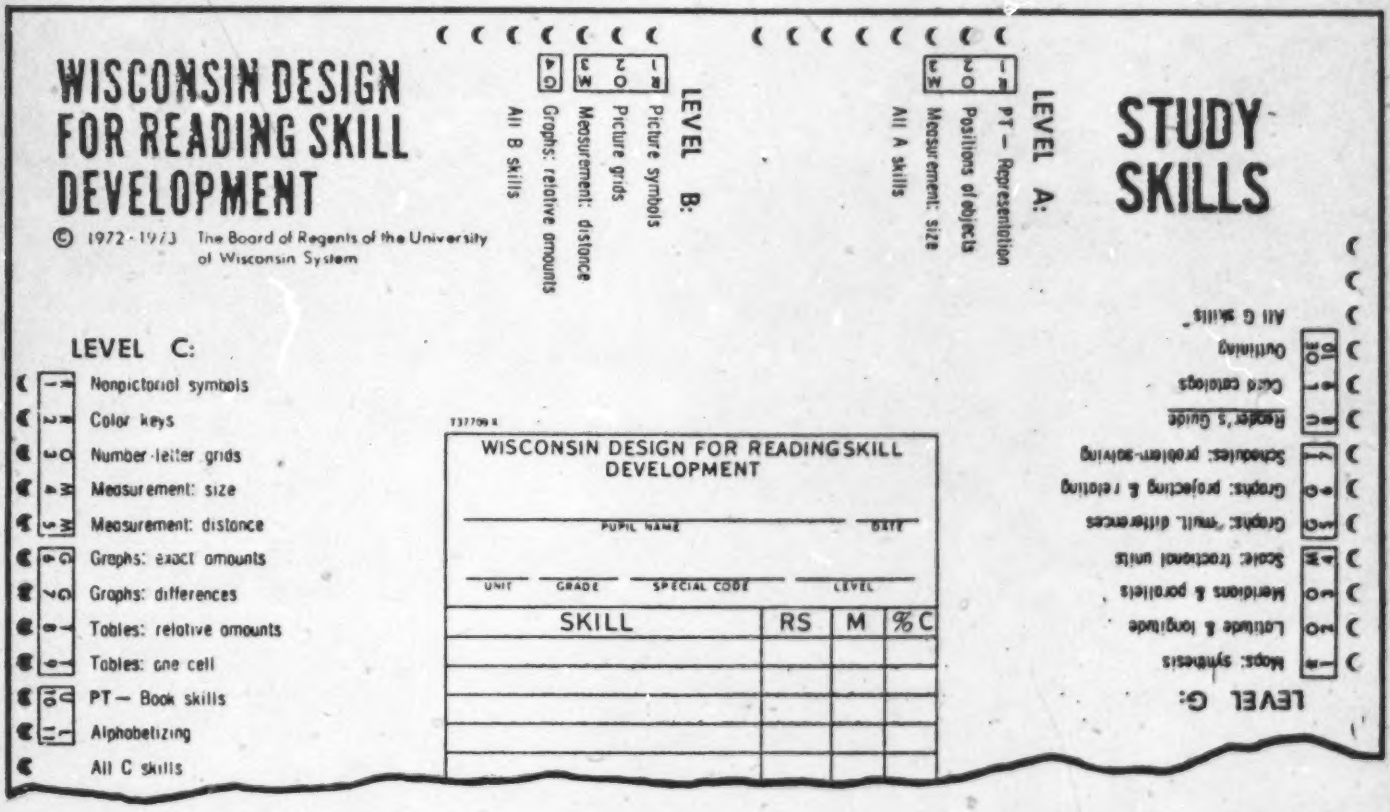
SKILL	LEVEL B	LEVEL C
E. Using Graphic Representations (maps, globes, charts, diagrams)	Develops the ability to locate places on simple maps; continues use of charts. **Social Studies**: Makes large plan to represent classroom, school block; locates farm areas on map of the United States. Science: Follows simple map of the community in looking for Animals in Our Neighborhood; constructs and reads chart developed as a result of this experience, e.g., Animal — Where We Saw It **Health**: Understands the purposes of and helps in developing charts related to health learnings, e.g., We Have Visited the Dentist Name — Date	Becomes aware of the globe as a representation of the world; becomes aware of directions; understands that small things on a map stand for big things in reality. **Social Studies**: Locates New York City on a map; compares map location to globe location; uses map of New York City to locate water areas, bridges, tunnels, points of interest; uses legend to understand symbols; compares size of simple large scale maps of the classroom, neighborhood, and community to the things they represent.

'Sequential Levels of Reading Skills', Curriculum Bulletin, 1967-68 Series, No. 4. New York : Bureau of Curriculum Development, Board of Education of the City of New York, 1968.

The Board of Education of the City of New York (1968), in a publication entitled Sequential Levels of Reading Skills, arranges skills in developmental order from Pre-kindergarten to Grade 12, but the ordering is fairly coarse and there is no stated basis for the order arrived at apart from 'judged complexity'.

One of the most recent statements in which an outline of the sequence of development of the study skills has been produced is in the study skills kit developed by the Wisconsin Research and Developmental Centre for Cognitive Learning, and published in 1973. In it the skills are carefully defined in behavioural terms and assigned to various levels on the basis of complexity. The elaborate framework is research-

based to some extent, but there has also been much reliance on curriculum specialist and teacher judgement. As with most publications of this kind, it is highly organized and crammed with aids and suggestions for the teacher.



'Wisconsin Design for Reading Skill Development'. Madison, Wisconsin; Wisconsin Research and Development Centre for Cognitive Learning, 1973.

Detecting Study Skill Weaknesses

However, despite these attempts to arrange and order the study skills, there is still little guidance as to 'when' the skills should be taught. As always, when we are unsure of the sequence in which things should be taught, we fall back on saying 'Teach the skills when the child has need of them!' All very fine. How do we assess 'need'? With a test perhaps? General achievement tests, such as the kind NZCER has developed,

will assist in isolating group or class strengths and weaknesses, but since the range of individual differences in pupil ability to perform the skills in question is probably as great, if not greater, than in subject or content areas, the real need is for diagnostic tests. Unfortunately, I know of no good published tests of this type. Thus, for the moment, teachers must construct their own, and rely on their experience and powers of observation to give them clues about individual and/or immediate needs.

Where skill weaknesses are located, direct and systematic teaching to bolster the deficient skills is usually the only option open to the teacher. But the limitations of such an approach are obvious. There is an artificiality in the use of the skills; there is the danger that in isolating the skills pupils may develop the ability to use specific skills one at a time, especially when directed, but may not be able to do so independently when confronted with the kind of problem which requires the integrated application of several skills at once. William Perry (1959) has reported that even at such a prestigious institution as Harvard he found students who possessed well-developed sets of study skills and who could do well on exercises using them one at a time, but who failed to use them in a synchronised attack on a problem.

Approaches to Teaching Study Skills

Obviously there are several approaches to teaching the skills at the right time, and the classroom or content area teacher is in the best position to know which skills will be needed to tackle problems and classwork in the immediate future. Only the teacher has an overview both of the skills required and of the opportunities available for their development and practice in his total programme.

A functional-incidental approach, for example, may be employed, in which the skills taught are not arbitrarily selected but evolve from the materials being used in classroom instruction, which the judicious teacher will select to provide the necessary vehicle for teaching new skills and practising learned ones. Thus, with this approach, teachers will not have to devote time to teaching study skills in isolation, or use materials unrelated to current programmes. Since the skills are demanded by the selected material they are practised as the material is being used by the pupils, whether it be reading a section of a textbook for the purpose of making a summary, viewing a filmstrip which contains illustrations and diagrams which must be interpreted, or devising a table to present data for a science project. Proficiency with the relevant skills and understanding of the content are being developed simultaneously. Because skills are being taught as they are needed, within the programme or curriculum area requiring their need, they are much more likely to be seen as relevant and important by the pupils, and the attainment of competence is therefore more likely to be assured. A word of caution, however. This approach can be very haphazard, uneven and ineffective if the teacher does not have an overview of the total programme, is not sensitive to the needs of his pupils, fails to keep in mind the development of the skills to higher and more sophisticated levels taking into account his pupils' abilities, does not plan ahead to incorporate the necessary skills, does not select the material to introduce and practice the skills, or is unable to manipulate classroom situations to capitalize on opportunities to bolster skills.

I should also point out at this stage that teaching for skill development using a functional-incidental approach is much more than simply asking questions about the content materials, even though a skill must be employed to correctly answer the question. Herber (1965) points out, quite aptly, that:

> 'Skill development by asking questions... assumes that the students are somehow able to identify the skill they need to apply to the material in order to answer the question'.

As you will realise, it is frequently not immediately obvious which skill or skills are to be applied. Herber then goes on to say:

> 'The procedure (of asking questions) assumes that simply by the exercise of the skill, without some conscious awareness of the purpose of the process, students will develop facility with the skill to apply it independently. This is a false assumption and leads to conditions in which students only practise errors: that is, they either apply the incorrect skill or apply the correct skill in an incorrect fashion and reinforce erroneous habits'.

Guidance, direction as to purpose, meaning and application are necessary. And this should be related to the pupils' present level of competence. Pupils must be taken step by step through the procedures using the relevant skills, and this strategy must be carried out at increasingly higher levels of sophistication, not just at the introductory stage.

A more direct approach, which I think has considerable merit, is outlined by Shores and Snoddy (1971). They envisage a four-stage scheme of introduction, focused practice, re-teaching and further practice. Stage 1 introduces the skill and clarifies its use and purpose. This might be accomplished through an expository, inquiry or problem-solving approach. Stage 2 provides practice in a controlled situation which focuses on a specific skill. This stage might well include short drill exercises of about 10-15 minutes. Stage 3 reinforces and culminates the first lesson on a particular skill. These three

stages would take probably 30-40 minutes and could be accomplished in a single lesson. Stage 4 involves independent application and is probably best done through carefully-contrived assignments requiring the application of the newly-acquired skill. As stated previously, content areas such as social studies and science are ideal for this purpose.

A content-oriented approach has been mentioned already in discussing the responsibility for instruction in study skills at the secondary level. I said that teachers in content areas should be responsible for developing study skills relevant to their area, and I saw the English teacher as providing links between the various areas and coordinating teaching efforts in study skills. This is important because not all the skills from a given skill category, for example, skill in following directions, skill in classification, skill in summarizing, will necessarily be taught in the same subject area. So, to avoid omissions or redundant instruction, someone must have an overview of the whole situation. This is not such a problem in the primary school where one teacher teaches many subjects. Further, the skills differ from one area to another, and in some cases are highly specific, so that one cannot assume transfer from a previously taught skill which may have some similar elements, but which is not identical. For instance, can one assume that a child who can read and interpret circle graphs can also read and interpret picture graphs?

More applicable, possibly, to the secondary school is the approach I will call the textbook approach. If a particular textbook is selected as the basic text for a subject area, say, History, the teacher should carefully analyse the textbook to find out which skills are required for thorough comprehension of what it contains. Do not assume that children know how to read diagrams or interpret illustrations without guidance. Do not think

that charts, time-lines, flow-diagrams and so on are self-explanatory. First ensure that the pupils do have the relevant skills, and, if not, teach these before the textbook requires the pupils to apply them. While skill instruction can be based on the requirements of a textbook, it is likely to be somewhat narrow in that a comprehensive range of skills would probably not be demanded by any one text.

At the primary and intermediate level the same type of approach can be used. Look closely at the instructional materials used, to see what they require in the way of study skills if the pupils are to get the most out of them. You will probably be surprised at what you find. An analysis, for example, of a random sample of New Zealand School Journals and Bulletins from 1966 to 1975 revealed that by the time pupils are using Part 4 Journals (usually in the upper primary school) they would need to employ all the skills used by an adult in reading narrative, descriptive and expository materials. The skills embodied in the Bulletins equate with the more difficult Part 4 materials and require the exercise of even more sophisticated study skills. So, do not just examine material for the readability and relevance, look a little further.

The curriculum itself can also provide another approach where fairly homogeneous units of study are spelt out in terms of content objectives. Here the skill teaching will be geared to assisting the pupils to achieve the content objectives. If, for example, children are making a local study for Social Studies, there will be ample opportunity to teach, re-teach or consolidate clusters of skills which will be required to acquire, understand and present the information. A variation of the curriculum approach would be one where the teacher designs a unit, say around a theme of interest. The teacher would then plan to integrate the skills he wanted to develop or revise, into the whole unit so that his skill objectives, as well as the content and other objectives of the unit, would be achieved in a meaningful context. Such an approach requires a great deal

of planning and a good knowledge of the content of the unit, the probable lines of inquiry, the expected outcomes and the skills likely to be required. Yet the plan must be flexible enough to allow the teacher to capitalize on opportunities which arise in order to meet the needs of children where skill deficiencies become apparent.

Skill-oriented approaches are probably more straightforward than those already described, and are those that most frequently appear in the block on the reading timetable labelled Study Skills. Here specific skill needs of pupils, rather than content considerations, dictate instruction. But, what usually happens, in my experience, is that all children work on the same skill at the same time, regardless of differences in ability and regardless of immediate need. There is no reason why this should occur if enough graded materials are available to cater for the wide range of ability and differing pupil needs found in the usual classroom, and children are allowed to work individually or in small homogeneous groups. Obviously, to work effectively, each pupil's skill development requires careful monitoring so that pupils are not going over skills previously mastered and already in frequent use, or receiving instruction in skills that are well beyond their present level of competence or for which they will have no need in the foreseeable future. This is where prepared study skill kits, such as the Wisconsin and the SRA, and books devoted to specific study skills, or groups of skills, such as the My Weekly Reader series, put out by Xerox Education Publications, Allyn and Bacon's Study Skills series and the Reading Skills Laboratory series published by Houghton Mifflin, come into their own. For the busy teacher, or those unsure of themselves in the area of study skills they are, in my opinion, a good crutch - but a crutch to be discarded in time for, unless used with care and sensitivity, these highly-structured approaches can be terribly mechanical and artificial. For the teacher looking for new ways to teach study skills there is a rich

lode of ideas to be mined from these publications. And, in considering skill-oriented approaches, do not forget the many excellent films and filmstrips that are now available.

I do not intend recommending any particular approach to you. It would be foolish to try. The best approach will be that which suits you, which will allow you to attain your instructional objectives and which will cater for the diverse needs of your pupils. In fact, a combination of approaches may be the best strategy to adopt. But, whatever approaches or approach you decide upon, your programme should have these features:

1. It should cater for individual differences in pupil needs and abilities and should provide instruction geared to these.

2. It should provide for application and reinforcement of skills outside the reading programme.

3. It should have some system of monitoring pupil achievement and growth at regular intervals.

4. It should move the pupil towards ever-increasing independence in the use of study skills.

Research Evidence for the Effectiveness of Study Skills Programmes

Now that I have described various approaches to teaching study skills and having offered suggestions on how programmes might be conducted, I think it only fair that I should report what research has to say about the success (or otherwise) of such programmes for fostering the development of study skills. Much of the published research leaves something to be desired in terms of design, and most of it deals with reading skills generally and study skills are only included as part of the programme.

Catterson (1965), in summarizing the findings of a number of programmes (or more correctly, partial programmes), of the descriptive rather than the experimental kind, concludes that:

> 'Aside from the specific suggestions about skills to be taught, the reports have a general significance. They show that over the past 10 years there has been an increasing recognition by school teachers and administrators of the need for specific help in reading and study skills at the high school level'.

There is really no evidence presented in the accounts that the programmes were effective, apart from one conducted by Beacon and Gillett (1955), the results of which were reported to be satisfactory. However, this did not deter another writer, Artley (1967), from stating on the basis of the same reports and Catterson's comments on them, that:

> 'There is ample evidence that study abilities can be taught and that the teaching of them contributes to improving learning'.

Well-controlled research studies on the effectiveness of study skills programmes are few and far between. However, the findings that can be gleaned from the literature may be of interest. Snoddy (1968), an active worker in the study skills field, concluded that a research study skills programme of the type used in his experiment in the Illinois Public School system was effective, stating:

> 'Such a programme is more likely to be successful if these skills are viewed as legitimate elementary school learnings and are introduced as part of a curricular area such as the English language or reading programme. After the skills have been introduced, opportunity for practice should occur in many of the curricular areas'.

Lillian Stinson (1970), in developing a reading programme which aimed to place greater emphasis on the research study skills, bemoaned the lack of objective methods to measure the application of the skills taught. However, she found that the teachers involved in the programme said they detected a great deal of progress in terms of skill application and library use and also a marked increase in interest and enthusiasm in the students. And Nold (1972), in investigating ways to improve skill development in children deficient in research study skills, got results that indicated that small instructional sub-groups, systematic teaching plans and prepared practice exercises were efficient procedures for helping these children improve their skills. A New Zealand study carried out by Small (1965) also warrants mention. Small worked with upper secondary school pupils giving them a creash-course of 15 periods spread over three weeks. Approaches to skill building such as skim reading, timed comprehension exercises, reading pacers, SQ3R, note-taking and memorizing were used, accompanied by discussions on the purpose and use of skills, study and examination techniques and the like. Tests of speed of reading and accuracy of reading, which do not appear entirely appropriate, were used to measure gain in the experimental and control groups. Small reported that the difference between the two groups was insignificant, suggesting that the course had had little effect. But he went on to say that the pupils believed they had gained from the programme and the stimulus to study they thought the techniques provided. Although the study is rather inconclusive, Small makes an important point about the programme used: 'A short period of intensive training' he states, 'is inferior to a sustained effort over a longer period or to frequent retraining'.

Studies done some years ago (Matthews, 1926, Arnold, 1938, Shores, 1943 and Seegers, 1946) on the teaching of specific skills, such as graph interpretation, skimming, recognition of bias, and so on, all present findings which can be interpreted as favouring the special teaching of study skills to promote improved performance as indicated by test results. More recent studies of particular skills are not as clear cut, and some, like those of Weigel and Weigel (1967) and Haslam and Brown (1968), are contradictory. But there are two points which do emerge fairly clearly. One is that there doesn't seem to be one best way to study or to employ study skills. Each pupil needs to find the method best for him. For example, some pupils may prefer to take notes and then write up a summary of them; others may prefer to listen and then write an outline; some may prefer to try and take down everything and develop their own shorthand to do it. The second point is that it would seem that, even if the teaching of study skills does not result in spectacular gains in performance as measured by tests or observation in situations requiring the application of the skills, there is an improvement in attitudes towards study and an increase in confidence and assurance in reading-learning situations. On the basis of this evidence I think we can modestly conclude that programmes for teaching study skills are likely to have positive outcomes.

Conclusion

In the time available I have only touched on some of the issues, completely ignoring others. There is no lack of suggestion as to what to do about teaching study skills if the literature is searched diligently. Two starting points I would advocate for those who intend following up some of the suggestions I've made. First, get hold of the IRA publication Developing Study Skills in Secondary Schools, a title in the Perspectives

in Reading Series. Second, examine some structured approach to teaching study skills such as the Wisconsin kit, or the SRA kit or the My Weekly Reader Series, but remember my cautions about them. Sensible teachers will adapt, rather than adopt, what is offered, tailoring it to their own needs and those of their pupils. If enough teachers can be converted to viewing study skills as a means to an end, rather than an end in themselves, and to thinking of them more as a way of teaching rather than as something to teach, and if they can also be persuaded to give study skills the time and attention they deserve, then we may yet produce children who are able to study both efficiently and independently, and who go on learning long after they have passed out of our care.

BIBLIOGRAPHY

ARNOLD, D.L. (1938) 'Testing ability to use data in the fifth and sixth grades'. Educational Research Bulletin, 27, 255-259.

ARTLEY, A.S. (1967) 'Effective study - its nature and nurture'. In J.A. Figurel (ed.), Forging Ahead in Reading. Newark, Delaware : IRA.

BAMMAN, H.A., HOGAN, U. and GREENE, C.E. (1961) Reading Instruction in the Secondary Schools. New York : McKay.

BEACON, R. and GILLETT, L. (1955) 'The Eugene reading program'. High School Journal, 39, 185-188.

BOARD OF EDUCATION OF THE CITY OF NEW YORK (1968) Sequential Levels of Reading Skills. New York : The Board.

CATTERSON, J.H. (1965) 'Successful study skills programs'. In H.L. Herber (ed.), Developing Study Skills in Secondary Schools. Newark, Delaware : IRA.

CHESTER, R.D., ASKOV, N. and OTTO, W. (1973) The Wisconsin Design for Reading Skill Development : Study Skills. Minneapolis, Minnesota : National Computer Systems.

COURTNEY, L. (1965) 'Organization produced'. In H.L. Herber (ed.), Developing Study Skills in Secondary Schools. Newark, Delaware : IRA.

FRINSKO, W. and DREW, G.M. (1972) 'Look it up! But can they?' Elementary English, 49, 74-76.

HASLAM, W.L. and BROWN, W.F. (1968) 'Effectiveness of study skills instruction for high school sophomores'. Journal of Educational Psychology, 59, 223-226.

HERBER, H.L. (1965) ed. Developing Study Skills in Secondary Schools, Perspectives in Reading, No. 4. Newark, Delaware : IRA.

MAHONEY, S. (1965) 'Basic study skills and tools'. Elementary English, 42, 905-915.

MATTHEWS, C.O. (1926) 'Grade placement of curriculum materials in social studies'. Teachers College Contributions to Education, No. 241.

MORSE, H.T. and McCUNE, G.H. (1964) Selected Items for the Testing of Study Skills and Critical Thinking, Bulletin No. 15. Washington : NCSS.

NOLD, J.T. (1972) 'Teaching research study skills in the fifth grade'. Dissertation Abstracts International, 32, 4331A.

PERRY, W.D. (1959) 'A report to the faculty'. Harvard Ed. Rev., 29, 193-200.

SEEGERS, J.C. (1946) 'Reading for Meaning'. Elementary English Review, 23, 247-250.

SHORES, J.H. (1943) 'Skills related to the abilities to read history and science'. Journal of Educational Research, 36, 584-593.

SHORES, J.H. and SNODDY, J.E. (1971) 'Organizing and teaching the research study skills in the elementary school'. Elementary English, 48, 648-651.

SMALL, J. (1965) 'Teaching Study Skills'. NZPPTA Journal, February, 21-22.

SMART, P.R. (1967) Let's Learn English series. Wellington: A.H. and A.W. Reed.

SMITH, N.B. (1964) 'Patterns of writing in different subject areas'. Journal of Reading, 8, 31-37.

SNODDY, J.E. (1968) 'Teaching research study skills in Grade 6'. Dissertation Abstracts, 28, 4833A.

STINSON, L.P. (1970) 'Teaching a reading study skills program at the sixth grade level'. Dissertation Abstracts International, 31, 2023A.

TINKER, M.A. and McCULLOUGH, C.M. (1962) Teaching Elementary Reading. New York : Appleton - Century - Crofts, Inc.

WEIGEL, R.G. and WEIGEL, V.M. (1967) 'The relationship of knowledge and usage of study skill techniques to academic performance'. Journal of Educational Research, 61, 78-80.